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Trans. from the Author

DEAFNESS

SUCCESSFULLY TREATED,

THROUGH THE PASSAGES LEADING FROM
THE THROAT TO THE EAR;

AS SATISFACTORILY SHOWN

IN THE REPORT OF THE
INSTITUTION FOR CURING DISEASES OF THE EAR,
32, SACKVILLE STREET:

WITH NOTES AND CASES.

By JAMES YEARSLEY,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, AND
SURGEON TO THE INSTITUTION.

THE SECOND EDITION.

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P R E F A C E.

THE following Report is printed, in accordance with the unanimously expressed wish of a numerous meeting of Friends of THE INSTITUTION FOR CURING DISEASES OF THE EAR, held March 8.

Such an honor was not anticipated by the Author, or greater pains would have been taken, in the Report, to make the different points, which have reference to the treatment of aural disease, more intelligible to the general reader. By the addition, however, of a few illustrative *Notes* and *Cases*, in an Appendix, it is hoped that this is now done satisfactorily.

Enough, it is also hoped, is now said, to show the inestimable value of Catheterism of the guttural

or Eustachian Passages, as not only affording the means of ascertaining, with great precision and accuracy, diseased conditions of the organ of hearing, which, without such proceeding, must, in many cases, remain matter of speculation and uncertainty, but also as enabling us to put in practice, methods of treatment which, experience justifies the Author in asserting, would prove successful in hundreds of cases now deemed incurable.

SACKVILLE STREET,

May, 1839.

P R E F A C E

TO

THE SECOND EDITION.

It is with great pleasure that I avail myself of the opportunity which a second edition affords me, of offering an observation on the methods of treatment which I have advocated in the following pages. Little did I anticipate that the operation of Catheterism of the Eustachian Passages, which demands considerable manual dexterity, delicacy, and experience, would immediately be seized upon by persons thoroughly unacquainted with its commonest principles, and that it would be employed by them *in all cases* of deafness, without exercising the slightest judgment, or possessing any discrimination, and who are incapable of taking those precautions by which

alone the operation can be performed without pain or danger. It is to be regretted that this important improvement in aural surgery should have been thus abused, and that a diagnostic and remedial agent, which is calculated to revolutionise this branch of medical science, should have been exposed to the risk of utter abandonment on the very threshold of its first introduction into this country.

Other empirical practitioners have been no less industrious in condemning the operation as painful and dangerous; so that, unless its merits had been indisputable and self-evident, aural surgery must have returned to the darkness and obscurity which has enveloped it up to this moment, and which rendered it the opprobrium of medical science.

From my earliest novitiate, as a student of medicine, now fifteen years ago, I have attended to diseases of the ear, with an anxious desire to acquire information, though with an utter hopeless-

ness of becoming thoroughly acquainted with them; but when my attention was directed to the value of Catheterism, and other practical improvements, long ago proposed in this country, but only recently matured by our continental brethren, I saw the desired end of my studies was likely to be obtained; and I have unceasingly pursued my investigations until I have arrived at those conclusions which I am now most anxious to impress upon the minds of medical practitioners, with a conviction that they are of the deepest importance to the community. I have had many difficulties to encounter, but not with the enlightened members of my profession; they have known and felt my willingness to communicate all I had learned to them, and their approbation is all I covet.



PROCEEDINGS
AT THE FIRST HALF-YEARLY MEETING
OF
THE INSTITUTION
FOR
CURING DISEASES OF THE EAR.

[From the "Morning Herald," of March 18.]

A NUMEROUS and influential meeting of members of the Medical Profession, and Friends of this Institution, was held in the committee-room, on Friday, March 8, for the purpose of receiving and considering the Report of the Surgeon, Mr. Yearsley, and of framing Rules and Regulations for its future guidance, &c.

Sir MATTHEW WOOD, Bart., M.P., on being called to the chair, begged to acknowledge the com-

pliment which had thus been paid him. Sympathising in the charitable purposes of the Institution, he had cheerfully responded to the invitation requiring his attendance, feeling at all times gratified by rendering his assistance when the poor could be benefited, particularly in the manner which he felt assured would be presently brought before the meeting. He understood that this Institution, for relieving diseases of the ear, had been some time ago set on foot by benevolent individuals, and that its medical superintendence had been intrusted to Mr. Yearsley. His knowledge of that gentleman enabled him to vouch for his respectability, and also to state that he was connected by marriage with a family for whom he (Sir Matthew) held the highest respect, and some of whom stood deservedly eminent in the medical profession. Of the result of this day's proceedings, he augured most favourably; and, if the Institution had such merits as he was induced to ascribe to it, he would exert himself to promote its laudable objects. He would not detain the meeting longer, but would at once call on Mr. Yearsley to read his Report.

Mr. YEARSLEY then read an interesting Report* of the origin and progress of the Institution, from which it appeared that, since the opening in July last, more than two hundred poor persons, afflicted with diseases of the ear, had shared its benefits. After adverting to the neglected state of aural surgery in this country, Mr. Yearsley gave a short history of the origin of the important operation of Catheterism of the Eustachian Passages, and other methods of treatment, which he had extensively and successfully employed for the cure of deafness; and his efficient apparatus was here exhibited to the meeting. For the peculiarly favourable opportunity it had afforded him of proving the value of his remedial measures, he confessed himself indebted to the Institution.

Dr. SIGMOND, in rising to move the first resolution, said he felt that, in England, diseases of the ear had never met with that attention from the medical profession which their importance demanded: the treatment of these diseases appeared to have

* For Report, see p. 9.

been, by universal consent, abandoned to empirics. A gentleman of rank, whom he had recommended to consult Mr Yearsley, by some mistake went to one of these persons, who prescribed a pair of spectacles to cure his deafness!—(laughter). He (Dr. Sigmond) was of opinion, that such an institution as this is calculated to assist in dispelling the obscurity in which the subject of aural surgery is enveloped. He had, with much interest, witnessed the practical manipulations alluded to in Mr. Yearsley's Report; and he was convinced of their value in the treatment of deafness. He should beg to move,—

“That from the interesting and satisfactory Report just read, the ‘Institution for Curing Diseases of the Ear among the Poor,’ is entitled to public patronage and support, as a highly useful and meritorious charity.”

E. Moss, Esq., said he seconded this resolution with much pleasure. To be instrumental in furthering the interests of so useful a charity, afforded him satisfaction, more especially as he considered it to be

a great desideratum in this metropolis. Not only did it promise great utility to the poor, but also a collateral advantage, in affording a fitting school of instruction for students who might wish to obtain an insight into diseases of the ear. He, for one, was willing to acknowledge his ignorance of the subject; and he believed that most of his medical brethren were willing to make a similar admission. It was a subject which had been much neglected in England, and was yet susceptible of great improvement, as Mr. Yearsley had this day given unquestionable proofs. On their having so efficient a medical officer as Mr. Yearsley, he congratulated the meeting. He had known that gentleman from his childhood, and, through life, his character had been irreproachable. He knew that he had been educated in the first schools of practical surgery, not only in this country but on the continent; that he had practised his profession for many years with great success; and that, from his first entrance into the profession, diseases of the ear had been a favourite object of his study: they had been for a long time past exclusively so;

and he thought it was to such men as Mr. Yearsley that the profession and the public had to look for advancement in this branch of medical science.

The resolution was unanimously adopted.

G. NICKS, Esq., in moving the next resolution, said he felt much interest in the charity, which appeared to him to be most useful. He, moreover, felt indebted to Mr. Yearsley for the benefit he had conferred on a member of his own family, by the very methods of treatment of which that gentleman had given so interesting an account. He moved,—

“That the thanks of the meeting are eminently due to Mr. Yearsley, for the zeal and ability he had displayed in carrying out the objects of this Institution; and that he be requested to continue his exertions in the same praiseworthy cause.”

Mr. Yearsley briefly returned thanks.

Certain rules and regulations, which had, up to the time of this meeting, been the guidance of the Institution, were then read from the chair, and confirmed.

Dr. SILVESTER, after eulogising the objects of the Institution, and its tendency to elevate the character of aural surgery, moved, in accordance with Rule 4, just read from the chair,—

“That a committee of management be appointed, to conduct the general business of the Institution; to adopt such measures as are calculated to obtain subscriptions for its maintenance; and to direct the distribution of the funds so raised as may be deemed most advisable.”

Seconded by W. BRAMELD, Esq., and carried unanimously.

P. MATTHEWS, Esq., begged permission to address the meeting. Having once, in his own person, experienced the loss of hearing, he could estimate the value of this sense among the poor. For a period of nearly four years, he had been afflicted with severe deafness, which, at times, completely overwhelmed him with grief, and incapacitated him from pursuing his ordinary avocations. By his medical friends and others, various remedial means had been advised;

namely, cupping, blistering, acoustic drops, &c., which led to no end but to afflict him and increase his hopelessness of relief. He then applied to the Surgeon to this Institution, Mr. Yearsley, whose skilful treatment, in a very short time, perfectly restored to him the sense of hearing; and that blessing he has since uninterruptedly enjoyed.

The CHAIRMAN suggested to the meeting that, as the Report, read by Mr. Yearsley, contained not only an account of the proceedings of the Institution, but appeared to embrace points of great interest, in relation to aural surgery, Mr. Yearsley should be invited to publish it.

Moved by E. Moss, Esq., seconded by G. Nicks, Esq., and resolved unanimously,—

“That the best thanks of the meeting be given to the Chairman, for the able manner in which he had conducted the business of the day.”

R E P O R T .

Mr. Chairman, and Gentlemen,

AT this meeting of Friends of the Institution for curing Diseases of the Ear, and affording gratuitous relief to the poor, suffering from such complaints, it is proper that I should give a short account of its origin and progress up to the present time. For such a purpose, indeed, no time seems so suitable as this, in which, I may be allowed to hope, it has assumed a character so important, as fairly to entitle it, not only to the consideration of the philanthropists, who, by their presence on this occasion, evince the warm and generous interest they take in any project for the alleviation of human affliction, but, by the amount of benefit it has already con-

ferred on suffering humanity, fully to establish its claims to public patronage and support.

Of all the afflictions incidental to our nature, none is perhaps greater or more grievously felt than the loss of hearing. It is a sense which, more than any other, contributes to the every-day business and the every-day happiness of life. We are, moreover, indebted to it for our most refined and exquisite enjoyments. Without it, we are prevented from holding any but a painful communication with our fellow creatures, and are consequently embarrassed in, if not debarred from, that interchange of ideas which is essential to the cultivation and improvement of our understanding. Deprived of such intercourse, the powers of eloquence, the charms of social converse, and the endearing tones of affection alike, are lost to us.

To the intellectual classes of society, these reflections apply with peculiar force; though, to persons in the more humble ranks of life, the organ of hearing may be said to be of almost vital importance. Servants, when deprived of the sense of hearing,

become disqualified to hold their situations, and are, not unfrequently, reduced to a state of destitution: they are cast upon the world without the opportunity of earning a livelihood, as well as depressed by the nature of the disease, and the gloom it throws over the mind.

While, in its anatomical structure, no part of the human frame has been more thoroughly investigated than the ear, the most distinguished anatomists having examined it with scrupulous precision, and their labours having placed its most complicated mechanism intelligibly and strikingly before us, yet is it remarkable, that, in the whole range of medical literature, no part is so barren of practical information as that which relates to the pathology and therapeutics of this organ.

On the organ of sight, our libraries teem with scientific works, leaving us little to desire; but its fellow sense, the organ of hearing, certainly not inferior in value, appears, in this country at least, to have been, by universal consent, abandoned to empirics, from whom no advancement can be ex-

pected. In fact, with one or two exceptions, "aurist," in England, has been hitherto but another term for "quack;" and it is too well known, that the attention of such people is directed only to the discovery of the most successful method of imposing on public credulity. Indeed, a blind empiricism has, up to this time, characterized the *soi-disant* aurist; and I would as soon rely on the old woman's nostrum (every old woman has a remedy for deafness) as on his (*a*).

The greatest misfortune is, that the almost invincible want of success of these people, very naturally serves only to strengthen the already too prevalent notion of the incurability of deafness; so that, under such impression, hundreds make up their minds to live and die afflicted with a malady, oftentimes as curable as any other, if submitted to appropriate and scientific treatment. Nevertheless, the incurability of diseases of the ear has become almost proverbial; and, indeed, with the means usually employed for their relief, I am much inclined to the same opinion. Far otherwise would it be, if

the treatment of them were undertaken in reasonable time, and if that treatment were suitable to the morbid condition developed.

In relation to this important question of time, it must be observed that nature, generally alert in the removal of disease, acts but feebly in affections of the auditory apparatus. Owing to its peculiar organization, especially to the extreme solidity of its structure, a solidity essential to the firmness of parts, and to the distinctness of vibrations conveying the sense of sound, her powers are here limited, and therefore is it that cases of deafness rarely get well of themselves. Yet, how often do we find patients flattering themselves with the hope that the reverse will be the case ! Their malady, moreover, is generally painless, and, being frequently confined to one ear, they often suffer little, if any, inconvenience.

A gentleman, in great distress of mind, applied to me, in consequence of a sudden attack of deafness in the left ear. He stated that he had, for many years, been totally deaf in the right ear; but, "not being much inconvenienced," he had never sought

medical relief. Now, however, when the other ear was attacked, he discovered his error. Fortunately for him, the recent affection was remediable; and so, to his infinite surprise and delight, proved the long-existing deafness.

The neglect, indeed, manifested by many patients labouring under deafness, and their procrastination in seeking assistance, are truly surprising. These often fatal errors may, however, in many cases, be traced to the existing prejudice against undergoing any kind of treatment for this malady. Indeed, many patients, with long standing deafness, have thus replied to my censure for not, earlier, seeking assistance:—"Sir, I should have done so; but I was afraid of being made worse."

We have, then, great reason to complain of the little attention bestowed on the treatment of aural disease by men of science, in this country, who might have materially added to our stock of practical information. Until very recently we have even looked in vain for a scientific treatise respecting it. The very first page of almost every existing English

work plainly indicates, that the object of the writer is any thing but the advancement of science.

It must further be observed, that in no department of medical science are we so much behind our continental neighbours, as in the treatment of aural disease. The explanation of this fact may be found in the statement just made, that, in this country, the subject has hitherto been treated only by non-professional persons; whereas, on the continent, we find such men as Kramer, Itard, Deleau, Saissy, and others, devoting their best energies to its improvement. And with what success, is evidenced in their works. Most of the British practitioners, indeed, in this branch, are still blundering on, amidst the same unsuccessful results, as have for ages past attended the practice of aural surgery. The remedial measures are still limited to syringing, blisters, irritating ointments, purgatives, acoustic oils, stimulating ear-drops, acrid injections, emetics, gargles, &c. &c., over and over again employed, and that, in all cases, without any discrimination or judgment. Wherever the disease of the ear may be, whether external or

internal to the membrane of the drum, the same senseless, and generally inefficient, means are prescribed.

In proof of the little judgment with which, even down to the present day, irritating and stimulating applications, for instance, have been applied to the external auditory passage, a more flagrant example need not be quoted, than that, within the last three months, a paragraph has gone the round of the papers, in which *creosote* is recommended as a remedy for deafness! At a future time, I may make a few observations on this boasted remedy, as on some others which have obtained a temporary notoriety.

Hitherto, assuredly, diseases of the ear have been less under medical control than those to which any other part of the human frame is subject; and our want of method in their treatment, has been the natural and inevitable consequence of an imperfect investigation of the affected organ (*b*). Happily, the men of science, already mentioned, have drawn such attention to this branch of medicine, as cannot fail to be productive of most important results to mankind generally, and must, consequently, be the

means of rescuing it from the opprobrium which, up to this time, has attached to it. Investigations of diseased conditions of the ear can no longer be conducted in the same superficial manner. The improvements in aural surgery, pursued on the continent, must be put in requisition. By adopting them we can, in most cases, arrive at a true knowledge of the morbid condition of the organ; and with this advantage we shall have half cured the disease.

The maintenance of this valuable function in health, and its restoration under disease, are indeed worthy of our best efforts; and high honour will be due to him who succeeds in adding one iota to the *methodi medendi* of this important branch of medical science.

Deeply impressed with this feeling, and following the steps of the most scientific and skilful continental practitioners, by availing myself of the means which their talents and ingenuity have discovered, I have, for a considerable time past, verified in my own practice the value of their improvements. Their success and my own prove, that hundreds and thou-

sands are going *uncured* to the tomb, whose cases are remediable by the most simple and easy means.

The important circumstances already pointed out, namely, the value of this sense in the animal economy, the melancholy condition of the poor, when deprived of it, and the undisputed fact that, in this country, diseases of the ear have been much overlooked by men of science, were among the considerations entertained by the benevolent persons who generously co-operated in laying the foundation for the establishment of this Institution.

Under my superintendence it was opened in July of the last year; and, although scarcely any efforts have been made to give it publicity, and none to attach notoriety to its merits by means too generally adopted, yet upwards of *two hundred poor persons* (c) have already shared its benefits; and it is found that, in proportion as the Charity becomes more extensively known, its assistance is more eagerly and generally sought. No better proof can be adduced of its utility, if not of its absolute necessity.

The expenses attending it have, as may be sup-

posed, been very considerable; and, in order that the objects of the Charity should be fully carried out, and that it should not be limited in its usefulness, it has already become a matter of necessity, that the aid of the benevolent, and of those who take delight in contributing towards such humane institutions, should be solicited.

The advantages to the poor, and indirectly to mankind generally, from the establishment of charitable institutions for particular classes of disease, are indeed at once manifest; and the prevalence of such establishments shows that they commend themselves to the good sense of every community; the *eye* and *ear* in particular, appearing to demand this exclusive appropriation.

In viewing this Charity, then, as instituted only for the cure of a most distressing affliction among the poor, nobody will question its importance. But we must not forget the collateral advantages it holds out to the public in other respects.

Medicine and surgery are sciences in a great measure practical; and although elaborate treatises may

be written on these subjects, yet, like treatises on chemistry and other demonstrative sciences, they are comparatively useless, unless the study of them receive practical illustrations of the truths they announce.

Viewing, then, this Institution as a school for aural surgery, which I sanguinely look forward to see it become, it will have an additional claim for support on the liberality of the public. Here, illustrations of every disease of the ear will be constantly presented to the contemplation of the student; and in two or three months he will have seen more cases of aural disease than could occur to him in twenty or thirty years of extensive practice. It is indeed only by such public institutions that the skill of the most eminent practitioners is made extensively subservient to public benefit.

Individually and personally, I confess myself deeply indebted to the Institution, for the admirable opportunity it has afforded me of proving the utility and value of methods of practice successfully adopted on the continent in numerous cases of deafness, and

but little known, or at least little practised, in this country. I allude to Catheterism of the Eustachian passages, the employment of atmospheric air in the cure of diseases of the middle ear, and the application of vapors for the excitation of the auditory nerve, within the internal ear, in cases of *nervous deafness*.

If it would not be trespassing too much on the time of the meeting, I would venture to make a few observations on these subjects, and would endeavour to show the importance of these remedial measures, as contributing essentially to the advancement of aural surgery.

In order to make the subject as intelligible as possible to persons who are unconnected with the medical profession, and are, therefore, not supposed to be at all conversant with the anatomical structure of the ear, I must observe, that, in addition to the external auditory passage, which is visible to us all, there is also, on each side, an interior passage leading from the upper and back part of the throat to the middle ear, which is known to anatomists by the

name of the Eustachian tube or passage (*d*). It is a half bony, half cartilaginous canal, lined with a continuation of the same membrane which covers the internal surface of the nose, throat, &c., from one inch and a quarter to two inches in length, open at both extremities, and connecting the cavity of the tympanum or drum with the throat. Anatomists have differed materially as to the width of this canal: Du Verney and Kramer allow to it a diameter of only the thirty-second part of an inch. Its size, however, as well as its length, differs slightly in different individuals.

Through this canal, the atmospheric air, passing in respiration, is admitted to the cavity of the tympanum or drum, where, consisting as sound does, of aeriform vibrations, its presence is absolutely necessary to hearing.

Of course, any obstruction to the air passing through this canal is at once destructive to the sense; of which the following case, related by Val-salva, is a forcible illustration.

“ A certain yeoman had an ulcer above the

uvula,* which communicated with, and corroded part of, the orifice of the Eustachian passage, on the left side, which, when he stopped with a medicated tent, he lost his hearing in that ear, but recovered it as soon as the tent was taken out" (*e*).

Deafness, associated with a cold, is familiar to us all; for, though we may not have experienced it in our own persons, we may have observed it in others. Its explanation will be found in the fact, that, as the mucous membrane, lining the nose, mouth, throat, &c., is continued through the Eustachian passages, even into the cavities of the tympanum, so, when the inflammatory process attendant on a cold, and affecting this membrane, extends to these parts, a tumefaction or a mucous accumulation takes place in them, and thus (in either case), forms an obstruction to the access of air, without which, as I have just said, the organ cannot perform its function; and in proportion as the obstruction is more or less complete, do we find that the hearing is more or less injured (*f*).

* The fleshy process, pendulous at the back of the throat.

It will be at once evident to you, that, in cases where an internal part is alone affected, the usual remedies for deafness,—blisters, leeches, syringing the external passages, acoustic drops, &c., indiscriminately adopted by English aurists, would be of no avail. I have, indeed, no hesitation in saying that, except in the recommendation of gargles and emetics (*g*), (very doubtful remedies by-the-bye), deafness, arising from obstruction in these passages, or of the cavity of the tympanum, has never been treated, in this country, with any reasonable prospect of success.

When subjected to appropriate treatment, however, this description of deafness, even although it may have existed for many years, is perfectly curable. Numerous cases of the kind have, indeed, come under my notice, many of which were entirely cured, and almost every one materially improved, by the methods of treatment to which I have alluded, and of which I am now desirous of giving you a short explanation.

It is an interesting fact, that we are indebted to a

non-professional person for the first idea of treating deafness through the Eustachian passages. That necessity is the mother of invention, is here well exemplified, as it has since been, in another important surgical operation,—I mean lithotrity.

In the year 1724, Guyot, a postmaster of Versailles, made a communication to the Academy of Sciences, in Paris, wherein he stated that he had relieved himself of a deafness of several years' standing, by injecting the Eustachian passages through the mouth. It appears that his privation had distressed him so much, as to lead him to investigate the anatomical structure of the ear; and the idea occurred to him, that possibly the Eustachian passages were, from some cause, obstructed. He immediately invented an instrument, pronounced by the Academy *très-ingenieux*, which he supposed might be passed through the mouth to the Eustachian tubes, into the apertures of which he endeavoured to inject some fluid, probably water. In this manner he thence, perhaps, removed an accumulation of mucus, and, by so doing, relieved himself of the deafness.

This communication to the Academy of Sciences does not appear to have attracted much attention; indeed the possibility of the thing seems to have been doubted; but, as a means of cleansing the mere guttural orifice of the Eustachian canal, its value was conceded (*h*).

Our countryman, Cleland, was the first to propose the introduction of a flexible silver catheter *through the nose*. We find his very interesting paper on the subject in the forty-first volume of the Philosophical Transactions. Wathen, soon afterwards, published cases, showing the success of such an operation; and it appears he had been led to adopt it, from the following case, which occurred in his practice:—

“Richard Evans, aged thirty-five, was exceedingly deaf in both ears, and had no visible disorder in the external meatus. It arose from cold, and had subsisted several years; during which time no art or means whatsoever could procure him the least relief. In August last, he died of the small-pox, at the hospital in Cold-bath Fields. I took that opportunity to examine the Eustachian tube of each ear, and

found them both stuffed quite full of congealed mucus, which was observed by two gentlemen of the profession present. This was the only visible cause of the deafness, the other parts appearing in their natural state."

But although Wathen most satisfactorily showed the value and importance of Catheterism of the Eustachian passages, by the relation of other cases, strange to say, it again fell into disuse; and, until revived by Itard, Saissy, Deleau, Kramer, &c., it appears to have been quite forgotten. Even to this day it seems to be repudiated by English aurists, at least it is not practised by them (*i*). The eminent men just quoted have, however, by their practice and writings, drawn such attention to the subject, that it can never again be overlooked.

As a means of diagnosis alone, Catheterism is invaluable; in fact it is the only certain method of ascertaining the cause of deafness, when such cause is not to be found in the external auditory passage. Without such means of investigation, then, uncertainty as to the nature and want of plan in the

treatment of the diseases of the ear is not to be wondered at; and the non-employment of these means, in this country, affords to Dr. Kramer the true solution of his difficulty, in not understanding how the so-called English aurists (his designation of Curtis, Wright, &c.), “who must very frequently meet with the disease (mucous engorgement), in a foggy city like London, should have scarcely any notion of the proper diagnosis of the complaint, and still less of any rational mode of treatment.”

Catheterism has been practised by two different passages: through the mouth (as we have seen by Guyot), and through the nostrils. The first method is entirely exploded; indeed it is doubted by many, whether it was ever accomplished in that way. Through one or other of the nostrils, then, do we reach the orifice of the Eustachian tube; and generally we can most easily do so through the nostril of the same side.

With respect to the operation, various explanations of its steps have been given; but it is scarcely possible in words to convey such a notion of them,

as will enable the surgeon to accomplish it, without first making many unsuccessful attempts. The most dexterous hand will, at first, fail; in fact it is an operation of *tact*, to be acquired only after long experience; but once possessed of that *sine qua non*, it is surprising with what ease and certainty it is effected, and how simple and painless it proves.

I have now performed the operation many hundreds, nay, thousands, of times; and having consequently attained proficiency therein, it is generally accomplished without exciting even a murmur from the patient.

At first sight it appears formidable, but in reality it is not so, as is proved by the fact, that every patient, who has undergone the operation of catheterism, as well as syringing the ears, has uniformly declared in favour of the former.

Accumulations, engorgements, or concretions of mucus, blood, &c., are not the only causes of deafness which may be removed by Catheterism of the Eustachian passages. Adhesions, strictures, &c., are often remediable by the same means, conjoined

with such others as may be suitable to the individual case.

Through these channels, finally, I am enabled to treat the torpid or morbidly-excited auditory nerve, in either case constituting "nervous deafness," with considerable success. I am, indeed, constantly proving the value of the introduction of vapors into the cavity of the tympanum, in restoring the auditory nerve to its natural and healthy tone; and in a work I am about to publish on the subject, I shall be enabled most satisfactorily to show the value of these remedial measures.

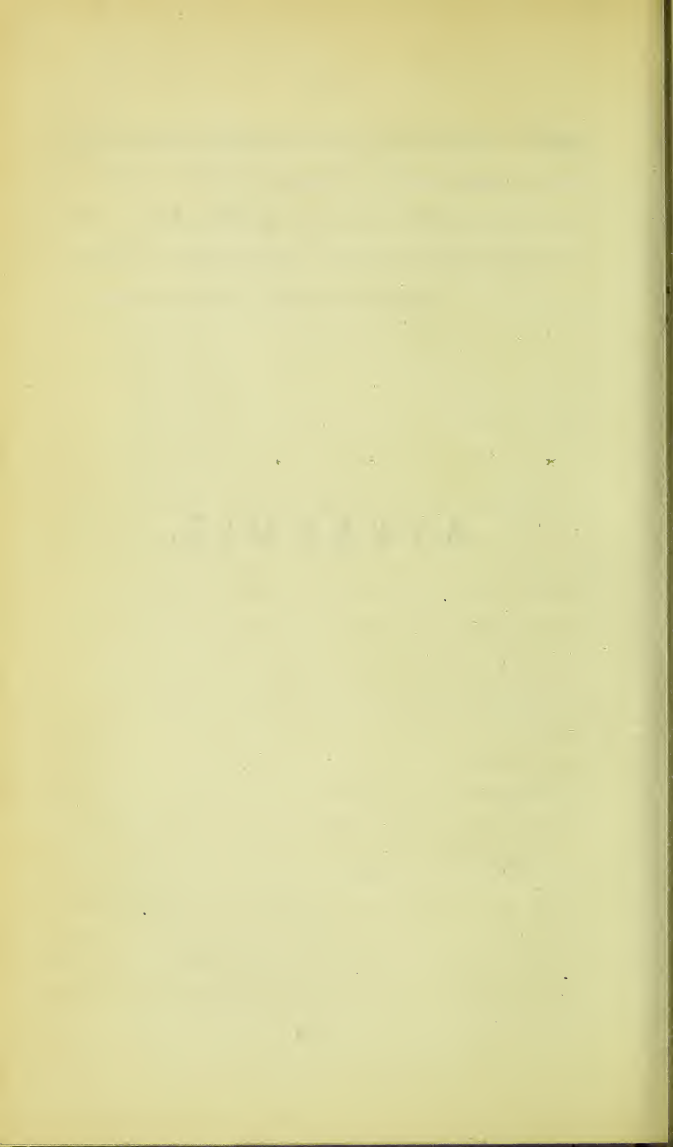
We cannot, then, too highly estimate methods of treatment attended by so much success, especially as the diseases of the ear, hitherto remediable by the ordinary means, have been limited to those affecting the external auditory passage, such as narrowing of it from inflammation, polypi, boils, hardened wax, &c. Now, happily, tumefaction of the membrane lining the Eustachian passages and the cavities of the tympanum from inflammation, accumulations of mucus, or extravasations of blood, &c. in these canals or

cavities; adhesions, strictures, &c.; and though last, not least, functional derangements of the auditory nerve itself, are all rendered accessible to the curative efforts of the really scientific aurist with every prospect of success.

I trust that the observations I have ventured to make, will not be deemed irrelevant to the object of the meeting. The advantages of the Institution itself to the suffering poor, though too manifest to require my feeble advocacy, could scarcely be passed unnoticed. In other respects, also, it seemed desirable that I should not limit my Report to a mere statement of the numbers cured, relieved, &c.; I therefore thought I could not do better than add to it a short explanation of the new methods of treatment, as already said, little known or practised in this country, which have, in many cases, been subservient to my success, and which hold out a reasonable hope to many an unhappy sufferer, whose case, irremediable by ordinary means, is not unfrequently designated *nervous deafness* (*k*), but which, upon proper investigation, might prove to be nothing

more than an obstruction of the Eustachian passages or cavities of the tympanum, or, at most, such a state of the auditory nerve, as would be still susceptible of improvement, if not of entire restoration, by appropriate and scientific treatment.

A P P E N D I X.



A P P E N D I X.

N O T E S.

(a) SPEAKING of nostrums,—on one occasion a patient, whose case had, for awhile, resisted my best efforts, gravely asked my opinion of a remedy strongly recommended to him as a sure cure for deafness. He had been desired to place an unskinned eel on a gridiron over the fire, until it was half broiled. It was then to be placed between two plates, and the oil which exuded from it was stated to be the specific. Cotton-wool, saturated with this oil, was to be placed in the ear at night; and the remainder, which the cotton would not absorb, was also to be placed in the ear. My opinion, freely given, was, that this remedy was quite equal in efficacy to the oil of Dr. Méne Maurice, to the acoustic drops of Dr. —, or Mr. —; in short, to any acoustic drops that ever were invented. Happy, indeed, would it be for thousands, were all acoustic drops as harmless as those proposed for my unfortunate patient!

(b) The main error, indeed, in the practice of English aurists, is their neglect of a careful local investigation of the affected organ,—a neglect from which must often result, not only great mistakes in the diagnosis of the disease, but unsuitable methods

of treatment. Within the last week, a highly respectable tradesman of Oxford-street, consulted me for deafness in the left ear. He had been, for some time, under a leading practitioner of aural surgery, who, after trying the usual remedies without success, had pronounced it a case of *nervous deafness*; and, in reply to the patient's anxious inquiry, whether the membrane of the drum was sound, answered in the affirmative. Upon examination, by means of the speculum and my efficient lamp, which, from its brilliantly concentrated light, makes me quite independent of the direct rays of the sun, I was surprised to find considerable disorganization of the membrane of the drum. This opinion, so directly at variance with that of a high authority in the profession, staggered my patient's confidence in me, and I never expected to see him again. However, the following day he returned, bringing with him a small bottle of ear-drops, which had been given to him by his family medical attendant, in the illness from which he dated his deafness. These, he told me, he had used *most industriously*; and, as he knew from experience that they were of a strongly irritating nature, he had no doubt that I was right in pronouncing the membrane of the drum to be seriously injured.

This gentleman is still under treatment; and if I fail in doing him good by the measures I am adopting, it will be entirely attributable to the state of the membrane of the drum.

The following observations of Kramer are so applicable to the subject in question, that I cannot forbear inserting them for its more complete elucidation:—

“Without a careful, thorough local investigation of the affected ear, the cure of deafness, on which the happiness of the patient's life frequently depends, is left to the arbitrary disposal of the blindest chance. I will merely adduce one out of many

The difficulty of obtaining a correct statement of the results of treatment can scarcely be conceived, and yet accuracy in medical statistics is of the first importance. With many patients, the regulation for reporting themselves, on ceasing to attend the Dispensary, *whether cured or not*, will have no influence, and therefore the item "unknown" will always be considerable in all honestly reported therapeutical results of those London charitable institutions which admit only out-patients.

(d) The guttural passage of the ear is named after Bartholomeo Eustachio, or Eustachi, to whom record ascribes the merit of its discovery. He was one of the distinguished band of Italian professors to whom we owe the restoration of anatomy, and much of its advancement in modern times. He was born in the early part of the sixteenth century, at San Severino, in the marquisate of Ancona. Having accomplished himself in the classical and Arabic languages, he studied medicine at Rome, and afterwards settled there, with a view to practise as a physician, under the patronage of the celebrated Cardinal Borromeo. The interest he could thus command, and his unusual talent, were sufficient to elevate him to the chair of medicine in the Collegio della Sapienza; yet he never obtained any degree of professional success, and after a long struggle with poverty and sickness, died in great indigence, about 1574.

Haller declares it to be impossible, without writing a treatise on the subject, to particularize the discoveries and corrections that Eustachi introduced into anatomy. The tube leading from the ear to the throat, and a certain valvular membrane in the heart, which bears his name, are among the former.

(e) “ Quidam plebeius ulcus gerebat supra uvulam in sinistra parte, quod quidam eam, quam invaserat partem exeserat atque abstuleret sic, ut ulceris cavitas cum extremo sinistrae tubæ orificio communicaret. Igitur quoties homo mollem turundam remediis imbutam in ulceris cavitatem intrudebat, toties illico sinistra aure evadebat surdus, talisque permanebat toto ex tempore quo turunda in ulcere relinquebatur.”—Valsalva, de aure humanâ, p. 90.

(f) Obstructions in the Eustachian passage, from mucous accumulation, are not unfrequent; and, as Kramer says, “ the disease being of a chronic character, it may last for years, nay, even during the whole life of the patient, without any effort being made by nature to free herself of the disease. Nor does the nature of the disease become in the least changed in the course of time,—it is, and continues to be, an accumulation of mucus, however long it may exist. It never passes spontaneously into stricture or obliteration of the Eustachian tube, if no more acute inflammation again attack the mucous membrane.”

(g) “ In very recent, slight cases, where the collection of mucus merely closes up the mouth of the Eustachian tube, *emetics* may accomplish the desired effect; but if the mucous accumulation extend to the cavity of the tympanum, as is the case in by far the greater number of instances, nay, in all those that come under medical treatment, it is beyond the sphere of the action of emetics, even repeatedly exhibited. A very temporary alleviation at the utmost, is all that can be reckoned on, which is the less a sufficient recompense for the severe procedure by vomiting, as we possess so convenient and certain a

method (catheterism) of effectually curing mucous engorgement of the Eustachian tube and cavity of the tympanum."—Kramer on Diseases of the Ear, translated from the German by Dr. Bennet.

(h) "Quoiqu'il en soit, les anatomistes ne croyoient point que la trompe d'Eustachie peut-être seringuée par la bouche, cependant M. Guyot, maître de la poste à Versailles, a trouvé pour cet usage un instrument que l'Academie a jugé très-ingénieux. La piece principale en est un tuyau recourbé, que l'on insinue au fond de la bouche derrière et au dessus du palais, á dessein de l'appliquer au Pavillon de la Trompe qu'on veut injecter. On en lave au moins l'embouchure ce qui peut-être utile en certain cas."—Memoires de l'Academie des Sciences, p. 37. 1724.

(i) "Wright boldly describes Catheterism of the Eustachian tube as an operation which cannot be depended on, which is extremely disagreeable, and which may be replaced by masticatory and sternutatory medicines. He expressly determines *not* to classify diseases of the ear, merely in order to conceal the utter confusion of his work; he refers to a larger work for his views respecting nervous deafness (though the one at present under consideration consists of 295 pages, large 8vo.), probably because he has no views to communicate which could be rationally associated with the use of purgative pills as a principal remedy for nervous deafness. Wright is surpassed, in the shallowness and worthlessness of his treatise, only by Stevenson and Curtis, from the latter of whom, as the head of a large institution for the treatment of diseases of the ear, verily better performances might have been expected. Curtis

treats every discharge from the ear exclusively, and in a summary way, by means of astringents; obstructions of the Eustachian tube with emetics, and perforation of the *membrana tympani*; whilst, in spite of all the entreaties of Saissy, he has never once practised catheterism of the Eustachian tube on the living subject. He makes *tinnitus* the chief symptom of nervous deafness, which he treats with purgatives, especially *calomel*, as long as the strength of the patient holds out. In all doubtful cases his chief attention is directed merely to ascertain whether the *liquor cotunnii* be partially or totally deficient!! or whether hardened wax exists in the meatus. He fancies that the *membrana tympani* may be altered in its form by loud sounds, and rendered concave externally (a form which, it is well known, is peculiar to this membrane); and that, by blowing into the Eustachian tube, or by exhausting the meatus of the air contained in it, by means of a tube accurately fitted to it, the concave *membrana tympani* may be drawn forward, and again rendered convex. In the otitis of children, he sticks opium into the affected ear, &c.; so that, through all his writings, nothing but the most crude empiricism is to be met with; and yet, among his compatriots, as well as abroad, Curtis generally possesses the reputation of being a distinguished aurist."—Kramer on Diseases of the Ear, translated by Dr. Bennet.

There are few of my professional brethren, acquainted with the writings and practice of the gentlemen alluded to in the preceding severe criticism, who will deny its justness. By direct reference to their works, I have satisfied myself that nothing is misstated; indeed, it was my duty to do so before making the quotation.

(k) "This 'nervous deafness' has hitherto been frequently misused as a cloak for ignorance and want of skill in any doubtful or obscure disease of the ear; and by this misuse it has become so suspected, that we might now be ready to adopt the opposite extreme, and deny its existence altogether. This, however, would certainly be wrong; for as the absence of any organic alteration, in the organ of hearing, affords the first and principal ground for concluding the existence of a purely *nervous* deafness, so we must deny the competency of any one to decide on the reality of this form of disease, who does not understand the mode of investigating the organ of hearing, and especially the middle ear, by means of Catheterism of the Eustachian tube. All the so-called English aurists,—Curtis, Stevenson, Wright, Buchanan, Saunders, and Swan, must therefore, in an especial manner, be denied any authoritative opinion on this subject; and to these must be added the remaining writers on diseases of the ear,—Lentin, Beck, Verin, Jos. Frank, &c.; not even excepting Saissy. Itard and Deleau alone, from their dexterity in the use of the catheter, form honourable exceptions."—Kramer on Diseases of the Ear, translated by Dr. Bennet.

CASES.

ANN CALLAGHAN, aged 40, residing at 10, York-court, East-street, Mary-le-bone, in good health, had, for three years, been afflicted with deafness to such a degree, that, on application, she could hear the tick of my watch only in contact with her ears. This poor woman, whose milk-walk is in Sackville-street and its neighbourhood, had submitted to the usual inappropriate remedies,—such as blisters, acoustic drops, syringing, &c., without experiencing the slightest benefit. Her affliction was a sad drawback to the successful pursuit of her avocations; indeed she was in danger of losing her situation. She referred the cause of her deafness to *a cold*; and she said that sometimes, for a few hours, there was a marked improvement in her hearing; and it appeared that this temporary alleviation happened after sneezing, coughing, blowing the nose, &c. From this statement, her mode of speaking, and one or two other circumstances, such as not finding any obstruction in the outer passages of the ears, and her inability to distend the tympanum by stopping the nose and mouth, I was led to conjecture that her deafness depended on a stoppage or plugging up of the *inner* or Eustachian passages. Under this impression, I applied the air-douche, at first gently to the right side. No good effect followed. The operation was repeated with greater force. I needed not the stethoscope to assure myself that I had this time succeeded. The mucous clot gave way,

and the result was, that I had no longer to speak above my ordinary tone of voice to make myself heard. The same success attended the operation on the left ear. The tick of the watch, which, when she entered the room, could be heard only in contact with the ears, was afterwards distinguishable at the distance of two feet and a half.

The next day she declared to me, that she had gone to bed the previous night "by no means to sleep, but for the pleasure of lying awake to hear Mary-le-bone church clock strike every hour of the night," which for three years she had not been able to do !

I have seen this poor woman within the last fortnight, and it is gratifying to find the cure is complete.

CHARLOTTE TURNER, residing at Brentford, aged 22, admitted Sept. 9th, had, for some months previously, been suffering from a considerable degree of deafness. It had originated in a cold which she took on returning from the wedding of a sister. The cold lasted some days, and was attended by a severe sore throat, the vestiges of which were still observable in the shape of swelled tonsils ; nor had she ever since been able to breathe freely through her nose. After examination of the outer passages of the ear, which were found free of any obstruction, I directed her to stop her nose and mouth, and try to force air up into the ears. She could not succeed. From the history of the case, and the attendant circumstances, I was satisfied of its nature, and therefore proceeded to adopt the necessary manipulations.

My first efforts were ineffectual ; and from the sensitiveness displayed on passing the catheter, it was evident that

a sub-acute inflammation of the mucous membrane of the nose, &c. still existed. I therefore contented myself for the present with prescribing warm baths, aperient medicines with antimonials, attention to diet, &c., and desired my patient to attend again in a week. A remarkable improvement in her general health was observable on her second visit; but the deafness remained the same. The catheter was now passed along the nostrils without the slightest pain or inconvenience, and the air-douche produced a remarkably good effect, especially on the right ear. Before the sitting, she could scarcely hear my watch in contact with the ear, which she could afterwards distinguish at the distance of four inches; and the perception of grave sounds was equally increased. The left ear was also slightly benefited. The operations were repeated, day after day, with marked improvement, and without the slightest inconvenience or pain to my patient. At the tenth sitting, she heard my watch tick at a distance of two feet from the right ear, and eight inches from the left. This case continued to improve without further treatment. By the dislodgement of an accumulation of mucus, I had succeeded in effecting all that was required; namely, a free passage for atmospheric air to the cavity of the middle ear.

In one month after her admission, she called to return thanks for her cure.

Mr. —, residing at Dover, hearing of a successful case of mine, which he considered similar to his own, was induced to make a journey to town to consult me. His deafness was considerable, and of four years' duration, and arose from cold taken whilst out "boating." He stated what appeared to him

a singularity in his case, but which was strongly confirmatory of its nature; namely, that occasionally he felt a "bursting away," after which he could hear tolerably well for some hours. He had been cupped and blistered, had used acoustic drops of all kinds, and a variety of other nostrums, to no purpose.

This gentleman's general health was by no means good. There was great debility; the digestive organs had lost their tone, &c. It seemed therefore desirable to attend to these indications. This was accordingly done, and with the happiest effect. The appropriate treatment for the relief of the deafness was then commenced, and after five sittings he could hear my watch tick at a distance of three feet from either ear. In a fortnight he left London quite well.

This case is the more satisfactory, as it had been considered *incurable* by the medical gentlemen he had consulted; and indeed it had resisted all *ordinary methods* of treatment.

CHARLES FORSTER, living in the New Road, had, for some months, been afflicted with deafness, attended with noise in the ears, resembling a "fall of water." He thought that it arose from taking cold. The hearing distance was two inches on the right side, and four inches on the left. The external passages presented a healthy appearance, though deficient in ear-wax. He had been under two or three aurists, and treated, as is usual, by blisters, tartar emetic ointment, oils, gargles, &c., but to no purpose.

Upon a careful investigation, the case was evidently a mucous obstruction of the Eustachian tubes. The second discharge of the air-press was successful in removing the obstruction on the left side; and he instantly heard at a dis-

tance of twelve inches. The treatment of the right side was equally successful.

This patient required but three other sittings. The cure was complete in one week.

Mrs. ROBSON, residing at 21, Old Burlington-street, received a blow on the left side of the head, a few weeks previously to her application to me, which rendered her suddenly and totally deaf on that side, and was attended with a loud humming noise, which sadly distressed her. I conceived this deafness to arise from an effusion of blood, either in the tympanum or Eustachian passages: certainly no cause could be discovered in the external auditory passage. Agreeably to this opinion, the air-douche was employed, and in ten minutes the passage was cleared, if not the cavity of the tympanum itself; and her hearing was perfectly restored.

A somewhat similar case occurred about a month since. The coachman to a family in Harley-street was thrown from the box. He fell on his shoulder, but the concussion produced instant deafness in the right ear. The accident happened three months previously to his consulting me. He was then on the point of going out of town with the family, so that the result of this case is yet to be determined. I am inclined to prognosticate favourably of it.

ELIZABETH STOKES, aged 27, living as servant at 123, Regent-street, had been deaf to such a degree, for several months, that, unless she had obtained relief, she must have relinquished her situation. The tick of the watch could scarcely be heard

in contact with the ears. Upon investigation, it appeared to be an obstruction of the *inner* or Eustachian passages, from an accumulation of mucus. Two discharges of the air-press sufficed to dislodge it, and to restore her to perfect hearing, to the no little astonishment of herself and three or four other patients, who witnessed the simple operation, which put her to no pain or inconvenience. She has continued well ever since.

EDWARD WING, a footman, in the service of Earl Stanhope, was admitted February 20, for a considerable degree of deafness, which had existed for several weeks, and which arose from a severe cold. He could hear my watch only in contact with the ears. The secretion from the nose was most abundant. The outer passages of the ears were free of any obstruction. The nature of the case was evident. The first discharge of the air-press reached the tympanum of the left ear, and he immediately heard the watch at a distance of seven inches. The operation repeated on the left ear was so far successful as to enable him to hear the watch at the distance of four inches.

On his second visit, still greater improvement was made by a repetition of the operations. The next day being a levee, his attendance was required with the carriage. The weather was cold and wet, so that, at his third visit, he was not so well in the right ear, though the left continued much improved. The operation was repeated on the right ear, and the effect was most remarkable. Previous to the operation, he could hear my watch at two inches only. The first discharge of the air-press enabled him to hear it at fifteen inches. His exclamation was, "Oh, sir, I am cured." And so, indeed, he was. The case never retrograded.

Mr. —, a respectable tradesman in the city, consulted me for deafness of six years' duration. In the early stage of the disease, a polypus had been extracted from the right ear, by an aurist of reputation, ever since which a copious discharge had taken place from it. A discharge also issued from the left ear. The deafness was so considerable, that he could not hear his watch tick in contact with the ears; nor had he been able to hear it since the commencement of the attack. His affliction seriously interfered with the successful pursuit of his business. He had availed himself of every means which promised relief, but always without experiencing any whatever.

By the aid of the speculum and lamp, I was enabled to detect a fistulous opening of the membrane of the drum on each side, still he could not blow air through the drum by stopping the nose and mouth.

I had little doubt of effecting more or less improvement in this case, if I could succeed in making a clearance of the mucopurulent discharge evidently collected in the Eustachian tubes and cavities of the ears. On the right side, the result verified my anticipations most satisfactorily; for, at the first sitting before the air-press, I enabled him to hear his watch tick, for the first time since he had bought it, four inches distant. No improvement was obtained in the left ear.

By the fifth sitting, ten days after the commencement of the treatment, he heard the watch distinctly at fourteen inches, and he had occasionally heard it tick with the left ear, which gives me hopes of effecting some improvement on that side also. Pressure of business has, it seems, prevented his further attendance at present; for, before sending this to press, I was desirous of knowing whether the improvement continued; and, in reply to my note, he thus writes:—

“ I am truly sorry that, in consequence of business, I am not able to call so regularly, after my having received so much benefit from your treatment. My hearing, however, is so much better, that all who know me are surprised.”

Mr. W —, an American artist of rare talent, became my patient at the end of the last year, for a *nervous deafness* of twenty years' duration. He could scarcely hear my watch in contact with the ears; and it was necessary to raise the voice considerably to sustain a conversation. He had used various remedies to no purpose. The *tinnitus*, or noise, which he generally experienced in the ears, and which, as is commonly the case, varied in its character, aggravated his affliction. The external auditory passages presented a healthy appearance, though deficient in ceruminous secretion; but the introduction of a catheter through the nostrils, into the Eustachian passages, plainly demonstrated a diminished calibre of these important canals; and it was with difficulty a particle of air, from the air-press, found its way into the cavities of the ear. After many repetitions, this *desideratum* was effected with ease, and with corresponding good effect to the hearing; but the most marked improvement has resulted from the introduction of ætherous vapor into the tympanum. After steady perseverance in this remedy, the *tinnitus* is nearly gone, and scarcely a day passes in which he does not relate to me some little anecdote of the satisfactory progress we are making: such as hearing his sister whisper, with her back turned towards him, at several feet distant; his capability of hearing St. James's clock strike, whilst sitting in his room; his being able to dis-

tinguish a rap at the door, &c. I insert an extract from a note received from him :—

“ You ask me to describe the degree of benefit to my hearing, whilst under your care. In justice to your skilful exertions, I must acknowledge a very great improvement indeed. At the time of my first introduction to you, such was the impaired state of my hearing, that I could distinguish the tick of a watch only in contact with the ears; but now (and with gratitude I say it), the very same noise is quite audible at the distance of two feet; and even, in conversation, an ordinary tone of voice is quite sufficient; in fact, a mere whisper I have, at different times, heard quite distinctly.”

CHARLES —, aged 30, messenger to the Naval and Military Bible Society, had been extremely deaf *from childhood*. It was necessary to raise the voice considerably to make him hear.

He could not distend the tympanum with air, by stopping the nose and mouth. Three sittings before the air-press, readily enabled him to do this, and he can now hear anything said, in a moderate tone of voice, with perfect ease, and the tick of the watch fourteen inches distant from the left ear, and three inches from the right.

From being a heavy, gloomy young man, he is now active and sprightly; in short, to use his own words, “ the improvement in his hearing has given him new life.”

Mrs. BLACKALL, a housemaid in the establishment of Lord Forester, 21, Charles-street, Berkeley-square, had been afflicted with a considerable degree of deafness in the left ear, for some

weeks previously to her consulting me. It proved to be a mucous accumulation in the Eustachian passage, &c., which was relieved after three sittings before the air-press.

Finding that she had been always subject to an inordinate secretion of the mucous membrane of the nose, &c., I was led to investigate the condition of the right ear, which she stated had been of no service for upwards of *thirty years*.

The Eustachian passage was evidently obstructed; but strongly suspecting the obstruction to consist only of concreted mucus, I was induced to persevere in the appropriate treatment, and I am amply rewarded by the result, for, at the fifth sitting, she heard my watch tick distinctly, three inches distant, and can distinguish the rubbing of her fingers together at arms' length

Mem.—May 2d. Air passes freely up to the tympanum, and she states that the ear is now become extremely valuable to her. The left ear remains well. She is still under treatment, with every prospect of greater improvement.

Miss —, about twenty years of age, had been afflicted with a considerable degree of deafness for several years, attended with *tinnitus*, or noise in the ears, which was extremely distressing. Her general health was good, but the slightest bodily or mental exertion considerably aggravated both the deafness and noise in the ears. She could refer the affection to no particular cause, nor was any other member of her family similarly circumstanced. She had been leeches, blistered, galvanised; had used acrid injections, ointments, &c., all to no purpose.

Having satisfied myself of the permeability of the Eustachian

passages, I commenced the application of ætherous vapor to the tympanum, which was continued for a period of three months,—three, four, sometimes five times a week, with the happiest effect. At the end of this time, the *tinnitus*, or noise, had almost disappeared, and the hearing distance was increased from three inches to one foot and a half, on the right side, and on the left, from one inch to seven.

Owing to her recall into the country, the treatment has now been discontinued for upwards of two months, but the improvement remains; and, upon the treatment being resumed, will, I have no doubt, be attended by still greater good effect.

A CLERGYMAN, from the county of Lincoln, by the recommendation of his surgeon, came up to town to place himself under my care, as he said, for two months, if necessary. From infancy he had been more or less deaf; and, at the time he consulted me, could hear my watch in contact only on the left side, and on the right side four inches. He was about twenty-eight years of age, and presented a picture of robust health. He was constantly annoyed by a noise in the ears, like “bells ringing.” As a youth, and until he was nineteen years of age, he suffered much from ear-ache. He had undergone a course of blistering, and his ears had been frequently syringed; nevertheless, upon looking into the *meatus externus* of each ear, a dark mass was observable, so that the latter had not been effectually done. On taking cold in the head, the deafness was always considerably aggravated; indeed, at such times he could scarcely hear at all. He could not distend the tympanum on either side, by stopping the nose and mouth, and attempting to blow air into it.

This was a highly interesting case, made more so by the curious and satisfactory result of treatment. There evidently existed a mucous accumulation in the Eustachian passages or cavities of the *tympani*, or both, on one side of the membrane of the drum; and on the other side, that is, externally, a hardened ceruminous accumulation. The removal of the former was accomplished, after two or three attempts, by catheterism, upon which the hearing distance was increased several inches on each side, and sounds appeared "quite hollow." At the same sitting, the ceruminous accumulation was removed, to his infinite astonishment; for having been syringed by a medical man, he could scarcely believe it possible that any existed in the ears. The removal of the wax perfected the cure. My voice, in a moderate tone, was quite distressing to him, and the noises in the streets of London, on returning to his hotel, were insupportable. In three days, instead of two months, he returned into Lincolnshire, after receiving proper directions how to keep the Eustachian passages free and unobstructed.

Miss C——, about fifteen years of age, having all the characteristics of struma, had been troubled from infancy with a constant discharge from the ears, occasionally very offensive. Her hearing was at all times very dull, but now and then she could scarcely hear at all; and this was more particularly observable when the discharge was but trifling from the ears. On one occasion the latter appeared to be entirely suppressed, after the injudicious employment of an astringent injection; the consequence of which was an almost total deafness. The discharge again recurred, and with it the usual degree of

hearing. Upon examination, both *membrane tympani* were perforated, though to what extent, the thickening of the external auditory passages prevented me from ascertaining with exactitude. She had been a sufferer from sore throat, whence resulted enlargement of the tonsils, and probably a thickening of the whole surface of the mucous membrane. She could not blow air through the ears, by stopping the nose and mouth, though she perfectly understood this operation. The hearing distance was about two inches from the right ear, and ten inches from the left, but it varied considerably, being much worse in moist and wet weather.

The indication to fulfil, in this case, was to obtain a free passage for the muco-purulent secretion of the membrane of the tympanum, through the Eustachian tubes, into the throat. Hitherto, in all probability, this had been prevented by adhesions at the tympanic extremity of the tube, or somewhere in its course,—the result of inflammation. There could be no doubt that some obstruction in the course of these passages existed, otherwise she would have been able to drive air through the external ear, and the matter, instead of discharging externally, would have made its way down into the throat, *insensibly* to the patient.

My first operative proceeding consisted in passing a sound into the mouths of the Eustachian passages, hoping to find there some mucous obstruction or adhesions, the removal of which would enable her to complete their permeability by her own personal efforts to blow air through the ears, the nose and mouth being stopped. Some trifling benefit was derived on the right side.

Another indication to fulfil, in this case, without which all my operations would have been in vain, was the invigoration

of the constitution. This I hoped to obtain, by prescribing a nourishing dry diet of bread and meat, and, medicinally, a powder three times a day, compounded of calumba, rhubarb, and soda.

After six attempts of catheterism, I was enabled to propel air into and through the tympanum; after which she could herself blow air through the external passages. She was much less annoyed by discharge from the ears, and the hearing distance was considerably increased.

By these methods having obtained a free exit into the throat, for the muco-purulent secretion of the ears, it became desirable to use means to diminish this secretion, which could now be done without injury to the hearing. A slight astringent injection of alum, sulphate of zinc, and rose-water, to syringe the external passages, and an alum gargle for the throat, were prescribed. Under such treatment, both constitutional and local, my patient rapidly recovered.

ELIZABETH OWEN, aged twenty, in the service of Sir Matthew Wood, bart., was admitted a patient of the Institution on the 24th of April, for a deafness affecting both ears, which had existed from infancy. She had never experienced any particular derangement of health, neither had she ever suffered any pain or discharge from the ears. Her father, and, I believe, another member of her family, had been deaf, and therefore the case was deemed *hereditary*, consequently no medical treatment had been instituted for her relief. It appeared a hopeless case; but having often seen benefit to arise from catheterism of the Eustachian passages, in other cases equally unfavourable, I was induced to give it a trial, especially

as from her having through life suffered occasionally from colds, which had always considerably aggravated her deafness, I might infer mucous deposits in the passages or cavities of the *tympani*, which catheterism would relieve.

On examination of the outer ear and passages, nothing could be seen to account for the deafness. They were in every respect well formed; but there was an entire absence of wax, so that syringing, and indeed any external treatment, was quite unnecessary. My only reliance; therefore, was on catheterism, and attention to the general health, by alterative medicine and dietary regimen.

The operations were repeated three or four times a week, with a gradual and steady improvement, the minutiae of which it is unnecessary to particularize. Suffice it to say that, by July 17, she could hear my watch tick distinctly at sixteen inches distant from the left ear, and five inches from the right ear. Lady Wood told me that, before this improvement, she was quite an annoyance to the family, by her stamping about the house, the poor girl not being able to hear herself walk. Now this was no longer the case, nor was she required to be addressed above an ordinary tone of voice.

This patient owes the improvement in her case principally to the kind interest which her master, Sir Matthew Wood, has uniformly manifested in favour of the Institution for curing Diseases of the Ear. He wished also to have an opportunity, of his own knowledge, to speak of the success of catheterism of the Eustachian passages, in the treatment of deafness, little supposing that it could be so forcibly exemplified in the case of his own servant, which had always been deemed hopeless and irremediable.

THOMAS HORGAN, shoemaker, aged thirty, residing at No. 8, Angel-court, Great Windmill-street, had been afflicted with deafness for four years, especially in the right ear, attended with a noise, "like the roaring of the sea." The deafness commenced with cold in the head, and was now so advanced, that the watch-tick was undistinguishable at either ear. During a cold he was always considerably worse, and moist wet weather sensibly affected him. His affliction appeared to have preyed upon his mind, and destroyed his health: he was pallid and care-worn. Catheterism, and invigoration of the system, by suitable tonics, soon set him up again, and he can now hear extremely well.

THE same success attended me in the treatment of Mary Owen, aged sixty-five, residing at 5, Eastern-place, Westmorland-place, Camberwell, who had been excessively deaf for sixteen years. Although she made a point of stationing herself, she said, as close as possible to the clergyman, at church, still it was only a word, now and then, that she was enabled to catch. Now she may be seen at the opposite end of the church, evidently hearing every word without the slightest difficulty.

Mrs. W——, about fifty years of age, had been afflicted with deafness for upwards of twenty years. During the first few years of her infirmity the hearing had varied considerably; so much so, that sometimes a stranger would not have discovered that she was deaf. Latterly it had become more confirmed, and was always considerably aggravated by moist and wet weather, or when she took cold in the head, which she was very apt to

do. There was a constant noise, as of "rushing of wind," which annoyed her exceedingly. She had never suffered from any particular illness, indeed she had nothing to complain of in regard to health, except a difficulty in managing her bowels, which were much disposed to constipation. At the commencement of the deafness she had a great deal of mental anxiety: she can mention no other cause as likely to have affected her hearing. She had experienced no pain in her ears, nor discharge. She had used acoustic drops, blisters, leeches, cupping, and syringing: could speak positively to the syringing making the hearing more dull. The ears were well shaped, and the external auditory passages healthy, with a due secretion of wax. The latter was obliged to be removed by careful syringing, in order that I might get a view of the *membrana tympani*. These presented an opaque appearance. The Eustachian passages were found extremely contracted, so much so, that it was only with the greatest difficulty I could, after several attempts, get the smallest quantity of air into the tympanum. By the employment of catgut bougies, introduced through the catheter, I ultimately succeeded in dilating the passages, but not with the success I anticipated. A slight improvement only took place. I should have been disposed to relinquish further treatment, but my patient wished that catheterism should be persisted in. The operation was repeated three times a week, without intermission, for three months, and the improvement she has experienced is most satisfactory. She can hear a watch tick distinctly at several inches from the ears, and can enjoy the society of her friends nearly as well as ever she could. I should state that some benefit has been derived in this case, from the injection of an alum lotion, through

the catheter, into the cavities of the tympanum. The deafness, in this case, may be referred to a morbid condition of the mucous membrane.

THE following case is related by Deleau, in his work on Catheterism of the Eustachian Tube, to show the necessity of atmospheric air in the tympanum, or drum of the ear :—

“ Mons. Eugene D——, seventeen years of age, residing at Metz, was introduced to me by Mons. Lacretelle, surgeon to the hospital of Val de Grâce. This young man, of a sanguineous temperament, had always suffered from hardness of hearing from infancy. His infirmity had become most intense at eight years of age, in consequence of some disease with which he was then attacked. Cold and damp weather often occasioned him pains in the ears, and much increased the deafness. These terminated almost always in an abundant discharge from the nose; after which he heard with less difficulty. The left ear was always worse than the right.

“ In summer, Mons. D. was subject to dizziness in the head, and sore throat. He felt beatings through the head, which compelled him to stop when he walked with too much haste.

“ On the 25th of July, 1825, the hearing was sensible to the tick of a watch at only a few inches from the ears. A catheter, introduced through the nostril, into the left Eustachian passage, enabled me to inject a current of air into the cavity of the tympanum, which immediately developed hearing in a manner so extraordinary, that the patient exclaimed— ‘ Is it possible that everybody hears so well as this.’ He was

delighted to hear the noise in the streets, pleased to recognise from whence it proceeded, and to judge of its direction. My catheter had penetrated some distance into the Eustachian passage, the walls of which applied themselves so closely upon the instrument, as to enable me to produce a *vacuum* in the drum of the ear, and *re-establish the deafness*. It was the first time that I had made this experiment; there was nothing disagreeable in it to my patient, who wished to submit to it again and again, until I had assured myself of the fact."

SINCE the publication of the first edition of this pamphlet, I have received many interesting communications from my medical brethren and others, confirmatory of the value of catheterism of the Eustachian passages. I have permission to make the following extract of a letter from Mr. Martin Ricketts, a surgeon in extensive practice at Droitwich, Worcestershire, whose case shows that, in mucous accumulation of the Eustachian passage, nature herself will sometimes operate a cure; in fact, deafness, suddenly relieved by a *pop*, is by no means rare.

He says,—“ I am much interested in the methods of treatment which, I understand, you are practising with so much success in the cure of deafness, especially as I can verify, by the curious termination of my own case, how well calculated they must be to effect the object in a great number of cases; indeed I am of opinion that no person should rest satisfied that their deafness is irremediable, until the Eustachian passages and tympanic cavities have been skilfully investigated.

“ Although a surgeon of twenty-five years’ extensive provincial practice, during which time many cases of deafness have fallen under my notice, still the condition of the Eustachian passages never occurred to me, as influencing the deafness to such a degree as, after hearing of your proceedings, I am now satisfied is the case.

“ I now see that my attention has been too exclusively directed to the state of the external auditory passages ; and if I have not been able to detect any obstruction in them, I am afraid I have, in too many instances, formed the erroneous conclusion that it must be a nervous affection, and probably incurable.

“ Like most of my professional brethren, diseases of the ear have never attracted much of my attention ; in fact, I am of opinion that these, as well as ophthalmic diseases, require exclusive attention ; it is therefore not singular, that the possibility of a mucous concretion, lying in the Eustachian passages, even for years, should never have occurred to me ; and yet my own case forcibly exemplifies the fact. For more than twelve months I had been deaf to such a degree, that I could not hear a word said by my neighbour at the dinner-table ; when, whilst lying in bed, it was suddenly removed by the act of sneezing. Though I could not account for my restoration at the time, I now see clearly that the plug, clot, concretion, or whatever you choose to call it, of mucus, yielded, by the act of sneezing, air instantly rushed up to the tympanum, and hearing was as instantly obtained.

“ Such a fortunate termination can rarely occur ; but, that you have it in your power to restore such cases, after many years duration, by the methods of treatment you practise, and,

as I understand, with so much skill and dexterity, as well as without the slightest pain to your patient, I can readily believe."

FINIS.

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